

*Observations on some Mammalia from the North of China.*

By M. A. MILNE-EDWARDS.

*Carnivora*.—The author indicates two species of the genus *Meles*, *M. leptorhynchus* and *M. leucolæmus*. The former resembles the common badger in appearance; but the black bands on the sides of the head are much diminished and narrow, so as not to pass the ear beneath. The cranium is much more narrowed between the orbits, and the whole fronto-nasal region is very narrow. The anterior aperture of the nostrils is small, the lower margin of the posterior nares is much more produced, and the lateral margins of the adjacent portion of the palatine arch constitute each a trenchant crest passing outside the outer face of the ala of the pterygoid. The upper tubercular molar is narrower and more elongate than in the European badger.

*M. leucolæmus* differs considerably from the known representatives of the genus, and might be regarded as the type of a new generic group. It is much smaller than the preceding (which is somewhat less than *M. taxus*); its hairs are much longer, and its throat and breast pure white. The skull is much shortened, especially in its cranial portion, the crests of which are scarcely salient. The part immediately behind the postorbital angles is not narrowed. The anterior frontal region is broad and depressed, whilst the muzzle is much drawn out, giving the face a conical form. The suborbital foramen is enormous, and the zygomatic arches very short. The exterior meatus auditorius is remarkably large, and approximated to the glenoid cavity. The mastoid apophyses are scarcely prominent. The tympanic cases, instead of being much inflated, are extremely depressed. The aperture of the posterior nares is thrown very far back, beyond the level of the articulation of the lower jaw. The third superior incisor is very oblique, and extends nearly to the canine; it is deeply worn by the friction of the lower canine. The tubercular molar is comparatively little developed. Both these species inhabit the vicinity of Pekin.

Panthers are common in this part of China; and, according to M. Fontanier, two species occur there. Of one of these the fur is much longer and thicker than in the Indian leopard, and the tail is very thick from base to apex; the skull is much more arched from before backwards than in the Indian and African leopards, the cranium is more developed, and the fronto-nasal region longer; the posterior margin of the bony palate is strongly emarginate, and the aperture of the posterior nares is short and broad. The skull differs considerably from that of Gray's *Leopardus chinensis*; and the species is named by the author *Felis Fontanierii*.

*Rodentia*.—Two large species of *Pteromys* inhabit the forests of the Tscheli Mountains. The largest, *P. melanopterus*, is nearly of the size of *P. momoga* from Japan, from which it is distinguished by the much greater length of the tail, and by the slightly fulvous-grey colour of the upper part of the body, which contrasts with the nearly black tint of the upper surface of the parachutes and feet. The

other, *P. xanthipes*, is rather smaller, and has a short but very thickly furred tail. It is yellowish grey above, becoming fulvous on the lateral membranes and feet. The body beneath is greyish.

*Ruminants*.—M. Fontanier brought from Peking a stag equal to *C. elaphus* in stature, and resembling that species in its general characters. It is distinguished by the more elongate form of the head, the greyer colour of the coat, and by the great development of the ischiatic patch, which is yellow. Hence the author names this species *Cervus xanthopygus*.—*Ann. Sci. Nat.* sér. 5. tome viii. pp. 374–376.

*Notes on some Algæ from a Californian Hot Spring.* By Dr. H. C. Wood, Jun., Professor of Botany in the University of Pennsylvania.

Some time since, Prof. Leidy handed me for examination a number of dried Algæ, which he had received from Prof. Seidensticker, by whose sister, Mrs. Partz, they had been gathered in the “Benton Spring,” which is situated in the extreme northern point of Owen’s Valley, California, sixty miles south-west from the town of Aurora. Afterwards a number of similar specimens came to me directly from Mrs. Partz by mail. The subject of life in thermal springs is one of so much general interest, especially in connexion with that of spontaneous generation, as to induce me to make a very careful examination of the material and offer the results to the readers of this journal. In this connexion the following extract from a letter of Mrs. Partz to her brother is very relevant:—

“I send you a few samples of the singular vegetation developed in the hot springs of our valley. These springs rise from the earth in an area of about 80 square feet, which forms a basin or pond that pours its hot waters into a narrow creek. In the basin are produced the first forms, partly at a temperature of 124°–135° F. Gradually in the creek and to a distance of 100 yards from the springs are developed, at a temperature of 110°–120° F., the Algæ, some growing to a length of over 2 feet, and looking like bunches of waving hair of the most beautiful green. Below 100° F. these plants cease to grow, and give way to a slimy fungus growth, though likewise of a beautiful green, which, finally, as the temperature of the water decreases, also disappears. They are very difficult to preserve, being of so soft and pulpy a nature as not to bear the least handling, and must be carried in their native hot water to the house, very few at a time, and floated upon paper. After being taken from the water and allowed to cool, they become a black pulpy mass. But more strange than the vegetable are the animal organizations, whose germs, probably through modifications of successive generations, have finally become indigenous to these strange precincts. Mr. Partz and myself saw in the clear water of the basin a very sprightly spider-like creature running nimbly over the ground, where the water was 124° F., and on another occasion dipped out two tiny red worms.”

In regard to the temperatures given, and the observation as to